

WHAT ARE CLAIMED ARE:

1. A command synchronization establishment system using
a network wherein data is transferred by an isochroous
transfer, a command is transferred by an asynchronous transfer, and a
5 synchronized clock is shared by apparatuses connected to the network,
the system comprising:
a controller connected to the network, comprising a
transmitter that transmits a command including a time-stamp to a target
apparatus by using the asynchronous transfer; and
10 the target apparatus connected to the network, comprising a
receiver that receives the command, a storage device that temporally
stores the received command in order not to execute the received
command instantly, and a executing device that executes the received
command in accordance with the time-stamp included in the command
15 to be executed.
2. A command synchronization establishment system according
to claim 1, wherein said executing device that executes the received
command when a current time reaches to a time represented by the
20 time-stamp included in the command to be executed.
3. A command synchronization establishment system according
to claim 1, wherein said executing device that executes the received
command before a time represented by the time-stamp included in the
25 command to be executed and validates a process result when a current
time reaches to the time represented by the time-stamp.

4. A command synchronization establishment system according to claim 1, wherein said time-stamp included in the command is in a format including a part or all of a format of a cycle time register of the
5 synchronized clock for sharing a current time by the devices connected to the network.

5. A command synchronization establishment system according to claim 1, wherein said command includes a flag instructing the
10 executing device to execute the command instantly or when a current time reaches to a time represented by the time-stamp included in the command.

6. A command synchronization establishment system according
15 to claim 5, wherein the flag uses a part of a format of the time-stamp included in the command.

7. A command synchronization establishment method using a network wherein data is transferred by an isochroous transfer, a
20 command is transferred by an asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network, the method comprising the steps of:

transmitting a command including a time-stamp to a target apparatus by using the asynchronous transfer from a controller
25 connected to the network;

receiving the command by the target apparatus connected to

the network;

temporally storing the received command in order not to execute the received command instantly; and

executing the received command in accordance with the
5 time-stamp included in the command to be executed.

8. A controller for a command synchronization establishment system connected to a network to which a target apparatus comprising a receiver that receives the command, a storage device that temporally
10 stores the received command in order not to execute the received command instantly, and a executing device that executes the received command in accordance with the time-stamp included in the command to be executed is connected, and wherein data is transferred by an isochroous transfer, a command is transferred by an asynchronous
15 transfer, a synchronized clock is shared by apparatuses connected to the network, the , the controller comprising:

a transmitter that transmits a command including a time-stamp to the target apparatus by using the asynchronous transfer.

20 9. A target apparatus for a command synchronization establishment system using a network to which a controller comprising a transmitter that transmits a command including a time-stamp to a target apparatus by using the asynchronous transfer is connected, and wherein data is transferred by an isochroous transfer, a command is
25 transferred by an asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network, the target apparatus

comprising:

a receiver that receives the command;

a storage device that temporally stores the received command in order not to execute the received command instantly; and

5 a executing device that executes the received command in accordance with the time-stamp included in the command to be executed.

10. A command synchronization establishment system using a
10 network wherein data is transferred by an isochroous transfer, a command is transferred by an asynchronous transfer, and a synchronized clock is shared by apparatuses connected to the network, the system comprising:

means for transmitting a command including a time-stamp to
15 a target apparatus by using the asynchronous transfer from a controller connected to the network;

means for receiving the command by the target apparatus connected to the network;

means for temporally storing the received command in order
20 not to execute the received command instantly; and

means for executing the received command in accordance with the time-stamp included in the command to be executed.